

Claims:

1. An apparatus for preventing a sleeping person from assuming a supine position, the apparatus comprising:
  - 5 a flexible, elongated waist belt having a first surface, a second surface opposite the first surface, and a sufficient length to encircle the waist of a person, a motion-limiting member protruding from the first surface of the belt and extending along at least a portion of the length of the belt, wherein the motion-limiting member comprises a body of a size sufficient to prevent a person from moving into the supine position during sleep when the motion-limiting member is located proximal to the lumbar spine area.
- 15 2. The apparatus of claim 1 wherein the motion-limiting member comprises first and second side surfaces extending from the belt, the first and second side surfaces having a thickness extending at least three inches from the belt.
3. The apparatus of claim 2 wherein the motion-limiting member has a length in the range from 8 to 20 inches and the first and second side surfaces have a thickness extending from 3 to 6 inches from the belt.
- 20 4. The apparatus of claim 1 wherein the motion-limiting member comprises at least a first body segment and a second body segment adjacent to the first body segment, wherein the first body segment is more rigid than the second body segment.
- 25 5. The apparatus of claim 4 wherein the motion-limiting member comprises at least three body segments including a middle body segment and two end body segments at opposite sides of the middle body segment, wherein the end body segments are more rigid than the middle body segment.
- 30 6. The apparatus of claim 5 wherein the end body segments comprise rigid supportive material and the middle body segment comprises soft pliable material.

7. The apparatus of claim 1 comprising a rigid plate positioned along a length of the belt proximal to the motion-limiting member, wherein the plate is positioned and sized to prevent movement of the motion-limiting member during sleeping.

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8. The apparatus of claim 1 comprising lower body apparel wherein the belt comprises a waistband attached to the lower body apparel and the motion-limiting member comprises a pad detachable from the lower body apparel.

10 9. The apparatus of claim 1 comprising a nerve stimulation device, a thermo-regulatory device, a deep-heating device with ultrasound, a massage device, or a combination two or more of these.

15 10. An apparatus comprising lower body apparel comprising a waist belt and a motion-limiting member extending proximal to a length of the waist belt so that when the lower body apparel is worn by a person, the motion-limiting member is located along a lumbar portion of the spine.

20 11. The apparatus of claim 10 wherein when the apparel is worn, the motion-limiting member prevents the person from assuming a supine position during sleep.

25 12. The apparatus of claim 10 comprising a nerve stimulation device, a thermo-regulatory device, a deep-heating device with ultrasound, a massage device, or a combination two or more of these.

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13. The apparatus of claim 12 comprising a nerve stimulation device with conductive electrodes.

30 14. The apparatus of claim 10 wherein the motion-limiting member comprises a pad that is detachable from the waistband using fasteners.

15. A method of preventing a person from assuming a supine position during sleep,  
the method comprising:  
    providing an apparatus comprising  
        a flexible, elongated waist belt having a first surface, a second surface  
5 opposite the first surface, and a sufficient length to encircle the waist of a person, and  
        a motion-limiting member protruding from the first surface of the belt and  
extending along at least a portion of the length of the belt,  
        securing the belt around the waist of the body so the motion-limiting member is  
located proximal to the lumbar region of the person, and  
10 wearing the apparatus during sleep.
16. The method of claim 15 comprising wearing an apparatus according to claim 1.
17. The method of claim 15 comprising wearing an apparatus according to claim 10.
- 15 18. The method of claim 15 wherein the apparatus comprises a therapeutic device  
comprising a nerve stimulation device, a thermo-regulatory device, a deep-heating device  
with ultrasound, a massage device, or a combination two or more of these.
- 20 19. A sleep apparatus comprising:  
    a flexible, elongated waist belt having sufficient length to encircle the waist of a  
person,  
    a therapeutic device located along at least a portion of the length of the belt,  
wherein the therapeutic device is sized and positioned to provide therapy to the lumbar  
25 spine area.
20. The apparatus of claim 19 comprising a nerve stimulation device, a thermo-  
regulatory device, a deep-heating device with ultrasound, a massage device, or a  
combination two or more of these.
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